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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,661	08/17/2006	Lewis Cheng	102907-437-NP	4597
24964 7590 10/15/2008 GOODWIN PROCTER LLP ATTN: PATENT ADMINISTRATOR 620 Eighth Avenue NEW YORK, NY 10018				
EXAMINER ZHAO, YU				
ART UNIT 2169		PAPER NUMBER		
MAIL DATE 10/15/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,661

Applicant(s)

CHENG ET AL.

Examiner

YU ZHAO

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. **Claims 1-12**, drawn to generating a data structure, classified in Class 707, Subclass 100.

II. **Claims 13-16**, drawn to Presentation processing of document, classified in class 434, subclass 322.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Invention Group I teaches how to generate a data structure from received files or documents. The Invention Group II teaches how to present questions and answers to the user through a user interface.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

During a telephone conversation with **Betsy Kingsbury Dowd (Reg. 52,830)** on **October 06, 2008** a provisional election was made without traverse to prosecute the invention of **Invention Group I, claims 1-12**. Affirmation of this election must be made by applicant in replying to this Office action. Claims **13-16** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. **Claims 1-11 are elected for examination.**

3. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Priority

4. It is acknowledged that the pending application claims priority to provisional application **60/459,329** filed **April 1, 2003**. Priority date of **April 1, 2003** is given.

Specification

5. The disclosure is objected to because it contains **embedded hyperlinks** www.w3.org... (page 3, line 2), and www.macromedia.com (page 3, line 12) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
6. The use of the trademarks has been noted in this application. It should be **capitalized** wherever it appears and be accompanied by the generic terminology. Appropriate correction is required
7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is not compliant in U.S. format.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (U.S. Patent No.: 6,463,440 B1, hereinafter, Hind), in view of Reiley et al. (U.S. Pub. No.: U.S. 2002/0016801 A1, hereinafter, Reiley), and further in view of Boehme et al. (U.S. Pub. No.: U.S. 6,578,192 B1, hereinafter, Boehme).**

For claim 1, Hind discloses a display system for multimedia content data comprising Mathematical Markup Language (MathML) data, said system comprising:

a display medium having a plurality of display lines for rendering multimedia content data thereon (Hind: column 1, lines 31-34, "Style sheets can be used for many types of presentation of a document, including printing the document, displaying it on a video display...");

a processor associated with said display medium and configured to (Hind: column 6, lines 7-24, "The workstation 10 includes a microprocessor 12 and a bus 14 employed to connect...The bus 14 also connects a display device 24, such as an LCD screen or monitor, to the microprocessor 12 via a display adapter 26.");

receive said multimedia content data comprising textual, MathML, and external file indicia data (Hind: column 2, lines 54-56, "...a document includes large objects such as image, video, or audio files...", column 1, lines 27-28, "A "style sheet" is a specification of a style that is to be used when presenting a document.", column 1, lines 36-37, "...transformations from one document type to another (e.g. from MathML to HTML)");

parse said received multimedia content data to derive said textual, MathML and external file indicia data (Hind: column 2, lines 3-4, "The source document is parsed recursively, until no more matching patterns are found.");

if the data type is TEXT: create a text object having said textual node data and locate a display line to display said text object in accordance with predetermined formatting conventions (Hind: column 1, lines 61-65, "Style sheets include "template rule" constructs, which define an input pattern and a template (also known as an "action") to use in *creating an output result tree fragment...*", column 5, lines 25-45, "...creating an object comprises: a first attribute, a second attribute, and a third attribute; and wherein the storing further comprises: storing a unique identifier of the object in the first attribute; storing the stored extracted characteristics in the second attribute, wherein the

characteristic pairs are delimited from one another using a first special character and wherein the characteristic identifier is delimited from the characteristic value in each of the pairs using a second special character; and storing the identifier of the selected style sheet in the third attribute."),

if the data type is FILE: create a file object having said external file indicia node data and locate a display line to load and display said file object in-line with previously rendered text and in accordance with predetermined formatting conventions (Hind: column 1, lines 61-65, column 5, lines 25-45),

if the data type is MATHML, create a MathML data object having said stored MathML node data and locate a display line to display said MathML data object in-line with previously rendered text and in accordance with predetermined formatting conventions (Hind: column 1, lines 61-65, column 5, lines 25-45),

However, Hind does not explicitly disclose categorize said textual, MathML and file data according to a data type; wherein said textual data is defined as a TEXT data type, said MathML data is defined as a MATHML data type and said external file indicia data is defined as a FILE data type;

store said derived and categorized textual, MathML and external file indicia data as a tree having a root node and a plurality of offspring nodes that define left and right subtrees, said root node and said offspring nodes each having one of said derived textual, MathML and external file indicia data and respective data type association;

define a traverse procedure that includes:

visiting a node of said tree,
determining the data type of said node;
displaying said node data in accordance with said data type, wherein:
if the data type is TEXT: create a text object having said textual node data and
locate a display line to display said text object in accordance with predetermined
formatting conventions,
if the data type is FILE: create a file object having said external file indicia node
data and locate a display line to load and display said file object in-line with previously
rendered text and in accordance with predetermined formatting conventions,
if the data type is MATHML, create a MathML data object having said stored
MathML node data and locate a display line to display said MathML data object in-line
with previously rendered text and in accordance with predetermined formatting
conventions,
applying said traverse procedure upon the left subtree of said visited node;
applying said traverse procedure upon the right subtree of said visited node; and
applying said traverse procedure upon said root node such that said root node is
the first visited node.

**Reiley discloses categorize said textual, MathML and file data according to
a data type; wherein said textual data is defined as a TEXT data type, said
MathML data is defined as a MATHML data type and said external file indicia data
is defined as a FILE data type (Reiley: page 6, paragraph [0066], "In the course
of the semantic analysis, the content transformer 140 preferably**

uses the analysis rules to classify each of the nodes as one of a predefined category.”);

store said derived and categorized textual, MathML and external file indicia data as a tree having a root node and a plurality of offspring nodes that define left and right subtrees, said root node and said offspring nodes each having one of said derived textual, MathML and external file indicia data and respective data type association (Reiley: page 2, paragraph [0016], “...creates a native hierarchical arrangement having nodes that each correspond to a Web page element from the Web page; performs a structural and semantic analysis on the native hierarchical arrangement according to a set of rules, wherein the semantic analysis comprises examining the relative location and meaning of each element in the native hierarchical arrangement and identifying nodes for deletion from the hierarchical structure; and creates a transformed hierarchical arrangement based upon the structural and semantic analysis, wherein the transformed hierarchical arrangement takes into account the relative location and meaning of the elements in the native hierarchical arrangement.”);

displaying said node data in accordance with said data type, wherein:

if the data type is TEXT: create a text object having said textual node data and locate a display line to display said text object in accordance with predetermined formatting conventions (Reiley: page 2, paragraph [0016], “and

creates a transformed hierarchical arrangement based upon the structural and semantic analysis, wherein the transformed hierarchical arrangement takes into account the relative location and meaning of the elements in the native hierarchical arrangement.”),

if the data type is FILE: create a file object having said external file indicia node data and locate a display line to load and display said file object in-line with previously rendered text and in accordance with predetermined formatting conventions (Reiley: page 2, paragraph [0016]),

if the data type is MATHML, create a MathML data object having said stored MathML node data and locate a display line to display said MathML data object in-line with previously rendered text and in accordance with predetermined formatting conventions (Reiley: page 2, paragraph [0016])

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon “Retrieval of style sheets from directories based upon partial characteristic matching” as taught by Hind by implementing “Adaptive profile-based mobile document integration” as taught by Reiley, because it would provide Hind’s system with the enhanced capability of “for transforming content from a native format into a device specific format that is configured for use and display by a requesting device.” (Reiley: page 1, paragraph [0013]).

However, Hind and Reiley do not explicitly disclose

define a traverse procedure that includes:

visiting a node of said tree, determining the data type of said node ();

applying said traverse procedure upon the left subtree of said visited node;

applying said traverse procedure upon the right subtree of said visited node; and

applying said traverse procedure upon said root node such that said root node is the first visited node

Boehme discloses define a traverse procedure that includes:

visiting a node of said tree, determining the data type of said node

(Boehme: column 5, lines 36-43, "The BSP processor 203 then does a preorder top-down left-to-right walk through the DOM tree, searching for <BSP> elements, as shown in block 205. Each such element encountered is processed by passing its child elements, in left-to-right order, to a BML interpreter 206, along with context information describing the HTTP "get" request 201 and a reference to the "Document" root node of the DOM tree.");

applying said traverse procedure upon the left subtree of said visited node;

applying said traverse procedure upon the right subtree of said visited node; and

applying said traverse procedure upon said root node such that said root node is the first visited node (Boehme: column 5, lines 36-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Retrieval of style sheets from

directories based upon partial characteristic matching" as taught by Hind by implementing "Method and system for supporting dynamic document content expressed in a component-level language" as taught by Boehme, because it would provide Hind and Reiley's system with the enhanced capability of "passing the BSP source file out to the HTML or XML parser 204 for rendering a DOM representation, which is easier for a program to manipulate than XML textual form." (Boehme: column 5, lines 32-36).

Claim 2 is rejected as substantially similar as claim 1, for the similar reasons.

For claim 3, Hind, Reiley and Boehme disclose the modified system as in claim 1 or 2 wherein said multimedia content data comprises Markup Language data (Hind: column 1, lines 35-39).

For claim 4, Hind, Reiley and Boehme disclose the modified system as in claim 3 wherein said Markup Language data comprises Extensible Markup Language (XML) data (Hind: column 1, lines 40-60, "An XSL Style Sheet specifies how an XML document is to be transformed for presentation, resulting in a different document which may or may not maintain the original document type.").

For claim 5, Hind, Reiley and Boehme disclose them modified system as in claim 1 or 2 wherein said external file indicia data comprises information associated with data files comprising graphics, video, animation, other displayable assets or a combination thereof (Hind: column 2, lines 54-56, "...a

document includes large objects such as image, video, or audio files...").

Claim 7 is rejected as substantially similar as claim 1, for the similar reasons.

Claim 8 is rejected as substantially similar as claim 2, for the similar reasons.

Claim 9 is rejected as substantially similar as claim 3, for the similar reasons.

Claim 10 is rejected as substantially similar as claim 4, for the similar reasons.

Claim 11 is rejected as substantially similar as claim 5, for the similar reasons.

9. **Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (U.S. Patent No.: 6,463,440 B1, hereinafter, Hind), in view of Reiley et al. (U.S. Pub. No.: U.S. 2002/0016801 A1, hereinafter, Reiley), and further in view of Boehme et al. (U.S. Pub. No.: U.S. 6,578,192 B1, hereinafter, Boehme) as applied to claims 1 and 7, and further in view of Kim et al. (U.S. Pub. No.: 2003/0120686 A1, hereinafter, Kim).**

For claim 6, Hind, Reiley and Boehme disclose the modified system as in claim 4.

However, Hind, Reiley and Boehme do not explicitly disclose wherein said data files are Macromedia or Flash-compatible files.

disclose wherein said data files are Macromedia or Flash-compatible files
(Kim: page 1, paragraph [0009], "Then the user can
manipulate/add/subtract the HTML tag or tags around the
associated meta-tag information of the source XML file in the

source HTML file for customizing the HTML tags using WYSISWYG HTML editors such as Microsoft FrontPage, macromedia...").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Retrieval of style sheets from directories based upon partial characteristic matching" as taught by Hind by implementing "Extensible stylesheet designs using meta-tag and/or associated meta-tag information" as taught by Kim, because it would provide Hind, Reiley and Boehme's system with the enhanced capability of "so that the customized HTML tags comprises the desired outcome of the target XSL file." (Kim: page 1, paragraph [0009]).

Claim 12 is rejected as substantially similar as claim 6, for the similar reasons.

Examiner Comments

A display system and a method of displaying multimedia content data are considered inherently comprising computer hardware components.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU ZHAO whose telephone number is (571)270-3427. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4427.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 10/9/2008

/Yu Zhao/

Examiner, Art Unit 2169

/Tony Mahmoudi/

Supervisory Patent Examiner, Art
Unit 2169

/Y. W./

Primary Examiner, Art Unit 2169